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EXAMINER

KADING, JOSHUA A

ART UNIT PAPER NUMBER

2661

DATE MAILED: 03/30/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/627,178

Applicant(s)

HELLWIG ET AL.

Examiner

Joshua Kading

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9 and 11-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9 and 11-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5

Claims 9, 11, 12, and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harriman et al. (U.S. Patent 5,898,687) in view of Mauger (U.S. Patent 6,483,842 B1).

10

Regarding claim 9, Harriman discloses "a method for operating a switching system for data packets...which comprises:

providing a switching system having inputs and outputs (figure 1, elements 102 and 104);

15

temporarily storing data packets at an input of the switching system (figure 1, elements 112 and 115 where the shared memory is temporary storage for a switch that receives many inputs); and

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sending only a message, if a data packet is received for transmitting to another switching system, to an output of the switching system, the message containing a reference, information about priority for correct marshalling of the data packet...(figure 1, elements 114, 130, 132, 134, and 136 where the message is the header from the data packet which is then broken down into its components, which includes priority and an address used as a reference); and

Art Unit: 2661

queuing a message packet containing at least one message in a waiting queue at the output of the switching system (figure 1, elements 130, which stores the messages and is a unicast output queue as per col. 4, lines 27-28)."

Harriman lacks the packets are of "varying length", and the message containing
5 "...information about a length of the data packet..." However, Mauger discloses the packets are of "varying length" (figure 1 shows the ATM packet used in Harriman, which is a fixed length, however, the ATM packet is made of the ATM mini cells in figure 1 of Mauger, these mini cells can be of varying length and are processed in the switching system), and the message containing "...information about a length of the data packet
10 (col. 3, lines 28-29)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the variable length packet and the message length information with the rest of the method for the purpose of providing different services using one switching protocol. The motivation being that services such as voice, video, and data
15 can be communicated using the same system without loss of efficiency (Mauger, col. 3, lines 42-48).

Regarding claim 11, Harriman and Mauger disclose the method of claim 9. Mauger lacks "the sending step is performed by sending the message packet along a
20 given transmission path, and which further comprises transmitting the data packet through the given transmission path but through a separate logical channel."

Art Unit: 2661

However, Harriman further discloses "the sending step is performed by sending the message packet along a given transmission path, and which further comprises transmitting the data packet through the given transmission path but through a separate logical channel (figure 1 where the data path between the inputs and element 112 and the outputs is the transmission path but the logical channel is from the inputs directly to the outputs)."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the more detailed sending step with the method of claim 9 for the same reasons and motivation as in claim 9.

10

Regarding claim 12, Harriman and Mauger disclose the method of claim 11. Mauger lacks "the given transmission path is a physical transmission path." However, Harriman further discloses "the given transmission path is a physical transmission path (figure 1 where the data path between the inputs and element 112 and the outputs is the physical transmission path)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the physical transmission path with the method of claim 11 for the same reasons and motivation as in claim 11.

15

Regarding claim 15, Harriman and Mauger disclose the method of claim 9. Harriman lacks "transmitting message packets, each containing multiple messages, together with the data packets through the switching system." However, Mauger further discloses "transmitting message packets, each containing multiple messages, together

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Art Unit: 2661

with the data packets through the switching system (col. 3, lines 42-51 where it is suggested that the voice, video, and data is transmitting across the system and each message packet (ATM packet) contains multiple messages (mini cells) and these are transmitted together with data packets as is suggested by the ATM packet layout of figure 1)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the transmitting message packets with the method of claim 9 for the same reasons and motivation as in claim 9.

Regarding claim 16, Harriman and Mauger disclose the method of claim 9.

10 Mauger lacks "handling transmission of a message with a data flow controller."

However, Harriman further discloses "handling transmission of a message with a data flow controller (col. 3-4, lines 67 and 1-2)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the controller with the method of claim 9 for the same reasons and motivation as in claim 9.

15

Regarding claim 17, Harriman and Mauger disclose the method of claim 9.

Mauger lacks "handling of messages with a data flow controller." However, Harriman further discloses "handling of messages with a data flow controller (col. 3-4, lines 67 and 1-2)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the controller with the method of claim 9 for the same reasons and motivation as in claim 9.

20

Regarding claim 18, Harriman and Mauger disclose the method of claim 9.

Mauger lacks "producing, if a data packet is transmitted to a plurality of destinations, only a plurality of messages and placing the messages into a respective queue."

However, Harriman further discloses "producing, if a data packet is transmitted to a
5 plurality of destinations, only a plurality of messages and placing the messages into a
respective queue (figure 2, elements 240 where multicast is transmitted to a plurality of
destinations as is known in the art)." It would have been obvious to one with ordinary
skill in the art at the time of invention to include the placing the plurality of messages in
a respective queue in response to a data packet being transmitted to a plurality of
10 destinations with the method of claim 9 for the same reasons and motivation as in claim
9.

Regarding claim 19, Harriman discloses "a method for operating a switching
system for data packets...which comprises:

15 providing a switching system having inputs and outputs (figure 1, elements 102
and 104);

temporarily storing data packets at an input of the switching system (figure 1,
elements 112 and 115 where the shared memory is temporary storage for a switch that
receives many inputs); and

20 sending only a message, if a data packet is received for transmitting to another
switching system, to an output of the switching system, the message containing a
reference, information about priority for correct marshalling of the data packet...(col. 6,

lines 46-49 where the message sent to the output of the switching system is the information about the data packet), and, if the data packet is transmitted to a plurality of destinations, only a plurality of messages and placing the messages into a respective queue (figure 1, elements 114, 130, 132, 134, and 136 where the message is the header from the data packet which is then broken down into its components and stored in elements 130, which is an unicast output queue as per col. 4, lines 27-28; figure 2, elements 240 where multicast is transmitted to a plurality of destinations as is known in the art); and

queuing a message packet containing at least one message in a waiting queue at the output of the switching system (figure 1, elements 130, which stores the messages and is a unicast output queue as per col. 4, lines 27-28)."

Harriman lacks the packets are of "varying length", and the message containing "...information about a length of the data packet..." However, Mauger discloses the packets are of "varying length" (figure 1 shows the ATM packet used in Harriman, which is a fixed length, however, the ATM packet is made of the ATM mini cells in figure 1 of Mauger, these mini cells can be of varying length and are processed in the switching system), and the message containing "...information about a length of the data packet (col. 3, lines 28-29)..."

It would have been obvious to one with ordinary skill in the art at the time of invention to include the variable length packet and the message length information with the rest of the method for the purpose of providing different services using one switching protocol. The motivation being that services such as voice, video, and data

Art Unit: 2661

can be communicated using the same system without loss of efficiency (Mauger, col. 3, lines 42-48).

Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable
5 over Harriman et al. and Mauger as applied to claim 9 above, and further in view of Sanders, Jr. et al. (U.S. Patent 4,135,156).

Regarding claim 13, Harriman and Mauger disclose the method of claim 9.
Harriman and Mauger lack "returning a further message to an input memory from an
10 appropriate output as soon as the data packet can be dispatched through the output, and only then transmitting the data packet to an appropriate destination." However, Sanders discloses "returning a further message to an input memory from an appropriate output as soon as the data packet can be dispatched through the output, and only then transmitting the data packet to an appropriate destination (col. 11, lines 30-36 where the
15 output queue manager controls the output queues and the memory refers to the input memory of claim 9). It would have been obvious to one with ordinary skill in the art at the time of invention to include the returning a further message with the method of claim 9. The motivation being to allow the input memory to know when the outputs are ready to receive data so congestion will not be blocked.

20

Regarding claim 14, Harriman, Mauger, and Sanders disclose the method of claim 13. Harriman and Mauger lack "the returning step being performed by returning

Art Unit: 2661

the further message containing information about the destination of the data packet."

However, Sanders further discloses "the returning step being performed by returning the further message containing information about the destination of the data packet (col. 11, lines 30-36)." It would have been obvious to one with ordinary skill in the art at the time

5 of invention to include the destination address in the further message. The motivation being that the destination of the data packet must be known in order to be transmitted successfully.

Conclusion

10 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE**
15 **MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
20 the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2661

Response to Arguments

Applicant's arguments with respect to claims 9, and 11-19 have been considered but are moot in view of the new ground(s) of rejection.

5 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (703) 305-0342. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Olms can be reached on (703) 305-4703. The fax phone number
10 for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.
15 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Joshua Kading
Examiner
Art Unit 2661

20 JK
March 23, 2004



**KENNETH VANDERPUYE
PRIMARY EXAMINER**